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## ABSTRACT

A program of developmental activities is provided for high risk students entering Tennessee Technological University. The purpose is to help the student develop skills in studying, communicating with others, socializing, decision making and career planning. Counseling Center staff members serve as academic advisors for high risk students who are enrolled in a major entitled "Regulated Admissions." The course load for high risk students is restricted. Students are enrolled in English, Physical Education, Developmental Reading, Psychology of Adjustment and one additional course. The Psychology of Adjustment course, taught by counselors, is the major vehicle of the developmental program. It combines educative skill training with course content to give students an opportunity to practice skills under supervision. The high risk students complete 10 hours of human relations training early in their first quarter. They also receive supportive services in terms of career development and tutoring as part of the developmental program. More than 90% of the high risk students were eligible to return for a second quarter. The mean quality point average for high risk students at the end of the quarter was 1.51 on a four point scale. Follow-up studies showed 64% completing one year of college. (Author)

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AGAINST THE ODDS: COLLEGE SUCCESS FOR UNDERDEVELOPED STUDENTS  
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THE INSTITUTION AND THE STUDENTS

Tennessee Technological University is one of five regional multi-purpose institutions in the state. About twenty percent of Tech's 7,000 students are enrolled in an engineering curriculum, twenty percent in education, twenty percent in business, and the final forty percent in other curricula such as agriculture, home economics, pre-professional areas and the sciences. Graduate programs are found in Business, Education and Engineering.

Tech is located in the Upper Cumberlands, a high plateau region in the Appalachians. Cookeville, the largest city in the region has a population of some 15,000 residents. The region is characterized by small towns, rural communities and farms. Most of the students live within 150 miles of the institution and would be considered rural, although the institution does draw from the states larger cities because of its strong academic programs.

For many years, students entering the University had to meet admissions standards (17 ACT Composite or 2.25 HSA). Students not meeting admissions criteria were placed in a Regulated Admissions category. In spite of their different classification they were treated in every way as regular students. There were no special programs of assistance for these students. The Counseling Center began a group counseling effort for these students in 1967. Many of these special students felt negative about the help they were receiving, and many refused to participate in the program. The group

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activity was just something extra they were asked to do that others did not have to do. Those students who did participate seemed to do better than expected in their school work. Several years later, the institution established a Regulated Admissions major (RADM). All students not meeting admissions criteria were placed in this major and were advised by Counseling Center Staff members sensitive to their needs. This group received academic advising and the group counseling activity. The program has developed since that time, by adding elements that seemed to be valuable in terms of the success of these marginal students. Students are RADM majors until they successfully complete twelve quarter hours of academic work. They then change their major to one of their own choice.

The literature is full of program descriptions and research covering topics such as the education of underprivileged students, study skills programs and other types of helping programs. Many of the programs were funded by government funds or were a part of an institutional commitment (largely in the community colleges) to meeting the needs of students in institutions with open-door admissions policies. Tennessee Tech's program grew out of a concern for students being encouraged to attend college, but who were grossly underprepared. Counseling Center staff members were most acutely aware of the problem, and developed programs to meet the needs. No separate budgeting, released time or other benefits have been provided through sources other than those of the Counseling Center. It was, therefore, important that we begin to examine our processes and make them as effective and efficient as possible in order to provide the service and continue to maintain a viable counseling program.

Who are the Regulated Admissions students and how do they differ from other entering freshmen? The average freshman entering Tennessee Tech presents an ACT Composite score of 19.0 (19.4 is the National norm). The average functioning of the Regulated Admissions students was 12.9. This would place the average Regulated Admissions student near the fourteenth percentile of the entering freshmen class. High school performance of these special students was also quite poor, with performance near the second percentile of entering freshmen students at the University.

#### ACT STANDARD SCORES - TENNESSEE TECHNOLOGICAL UNIVERSITY 1975

|                                     |      | ENGLISH | MATH | SOC.STUD. | NAT.SCI. | COMPOSITE |
|-------------------------------------|------|---------|------|-----------|----------|-----------|
| ENTERING<br>FRESHMEN<br>N=1154      | MEAN | 18.1    | 18.0 | 17.6      | 21.6     | 19.0      |
|                                     | SD   | 4.9     | 7.5  | 7.2       | 6.1      | 5.4       |
|                                     |      |         |      |           |          |           |
| REGULATED ADM.<br>STUDENTS<br>N=111 | MEAN | 12.5    | 11.6 | 10.6      | 16.5     | 12.9      |
|                                     | SD   | 4.1     | 5.2  | 4.5       | 3.8      | 3.1       |
|                                     |      |         |      |           |          |           |

#### HIGH SCHOOL GRADE POINT AVERAGE TENNESSEE TECHNOLOGICAL UNIVERSITY 1975

|                                  |      |      |
|----------------------------------|------|------|
| ENTERING FRESHMEN<br>N=1010      | MEAN | 2.93 |
|                                  | SD   | 0.65 |
| REGULATED ADM. STUDENTS<br>N=111 | MEAN | 1.58 |
|                                  | SD   | 0.33 |

The Regulated Admissions group is predominately male, eighty-seven percent as compared with fifty-seven percent of the entering freshmen group. Ethnically, these students are predominately Caucasian-American, reflecting a proportion similar to that of entering freshmen.

Students ranged from seventeen to thirty-nine years of age, with an average of 19.8 years. Eighteen percent were married. One-third came from communities of 2,000 or smaller, which is similar to the regular students. Twenty-four percent come from high schools with graduating classes of 100 students or smaller (nineteen percent for regular students). Seventy percent live within a hundred miles of the university, which compares with fifty-nine percent for the regular entering freshmen. About two-thirds live in residence halls.

The distribution of family income for Regulated Admissions students was not greatly different from that of regular students. Thirty-four percent came from families with \$12,000 or less income yearly as opposed to twenty-eight percent of the regular students. Thirty-four percent applied for financial aid as compared with about half of the regular students. Forty-four percent planned to work compared with fifty-two percent of regular students.

Seven percent of the Regulated Admissions students noted that their parents had been separated or divorced. Seven percent were "only" children, compared to twenty-one percent for the regular students. Twenty-seven percent were oldest or first children, and twenty-five percent were second born. Thirty-nine percent had one sibling, twenty-two percent had two siblings. Responding to a question regarding the person most influencing their decision to enter college, fifty-nine percent indicated self, eighteen percent noted their father influenced them, and eleven percent their mother, with teachers accounting for four percent and siblings, two percent.

Thirty-five percent of the Regulated Admissions students had fathers who had attended college. Twenty-four percent had fathers with only grade school education.

Aspirations are high for this group. Sixty-four percent aspire to the bachelors' degree level and twenty-two percent are planning to reach a goal of a masters degree. This compares with fifty-two percent of the regular students who are striving for the bachelors degree and eighteen percent for the masters degree.

Further efforts to differentiate these students from regular students involved tests of personality and study habits. Students were seen by counselors as shy, non-communicative, lacking motivation and lacking direction and educational skills. The California Psychological Inventory was used in an attempt to measure personality characteristics. The CPI profile was not greatly different than that of high school students described in the test manual. Regulated Admissions students performed relatively strong on scales measuring Social Presence, Self-acceptance, Communality, Flexibility and Femininity. The Social Presence scale would describe the students as relatively adventurous having wide interests, pleasure seeking, relaxed and uninhibited. The Self Acceptance scale would suggest students as fairly confident, enterprising, egotistical, opportunistic and self-seeking. The Communality scale would reflect easy-going students who are independent, lazy, pleasure seeking, sharp-witted and spontaneous. The performance on the Femininity scale might suggest those who are appreciative, complaining, meek, nervous, weak or worrying.

Students did relatively well on scales measuring interpersonal

effectiveness, style and adequacy (Cluster I) with the exception of the Wb (Sense of Well-being) scale. Students described themselves as anxious, blustery, distractible, forgetful, impulsive, quitting and restless. The second cluster of scales dealing with intrapersonal controls, values, styles and beliefs was relatively depressed. The Re (Responsibility) scale was most depressed, with students describing themselves as careless, disorderly, irresponsible, lazy, pleasure-seeking, show-off and spendthrift. The Tolerance scale, likewise depressed, would indicate those who are egotistical, self-centered and fault-finding.

The third cluster of scales measuring achievement motivation and achievement potential were depressed, particularly Ie or Intellectual efficiency. Low ratings on the Ie scale correlates with a lack of potential, a dislike for intellectual pursuits and ineffective social techniques.

The Brown-Holtzman Survey of Study Habits and Attitudes showed functioning below the thirtieth percentile on all scales. Lowest performance was on the Study Orientation scale (twentieth percentile) which combines Study Habits and Study Attitudes scales.

In summary, the program for poorly prepared students entering the University has grown over a ten year period from a group counseling situation to a multifaceted program as elements were added to help insure student success in college. We have attempted to measure student traits to develop appropriate programs, but the overriding goal was success in college.

Evaluation of student characteristics showed that the poorly prepared students came from roughly the same region and community size as regular students. Family economic level was similar for both groups. The educational level of the parents of Regulated Admissions students did not appear

different from that which might be expected of regular students.

Regulated Admissions students were slightly older on the average. A larger proportion, than regular students, had one or more siblings. Over half indicated that the choice of a college program was theirs rather than their parents or teachers. Fewer applied for financial aid. They had educational aspirations greater than the regular students. They did poorly in high school and performed poorly on the ACT test. Study skills and attitudes were poor. Overall personality functioning was about that expected of high school youth. They did relatively well on items relating to interpersonal effectiveness with the exception that they described themselves as distractible, impulsive and restless. They did not do well on personality scales relating to intrapersonal controls, values, styles and beliefs. They saw themselves as irresponsible, careless, disorderly, spendthrift and lacking in tolerance. Similarly, scales relating to achievement motivation and achievement potential were depressed.

PROGRAMMING FOR COLLEGE SUCCESS FOR HIGH RISK STUDENTS

There were 149 students enrolled at Tennessee Tech University under the Regulated Admissions classification for the Fall quarter 1975. One hundred and seven were admitted for the first time and 42 were previously enrolled. When a student completes successfully 12 hours of academic work, he/she may then transfer from Regulated Admissions to his/her major field of study.

The Counseling Center staff served as academic advisors for those students classified as "Regulated Admissions." The course load was restricted to 12 academic hours plus 2 hours of non-academic work per quarter. English, Freshman Orientation and Physical Education are required for all students entering Tennessee Tech for the first time. In addition to these required courses, Regulated Admissions students were required to take College Reading Improvement and Psychology of Adjustment courses. Finally, students were advised to choose one course from their intended field of study.

The Psychology of Adjustment course was designed to help students improve study skills, enhance the self concept, and aid in adjustment to college life. The Counseling Center staff served as instructors for this course. The course was structured to allow students to participate in developmental activities in the classroom and laboratory.

In addition to 3 hours of classroom instruction per week, a laboratory period of 1½ hours per week was required as a part of the course. This period was devoted to personal growth group activities. The classroom period was used to develop study skills. The textbook material was reviewed through exercises to develop these skills. The exercises included listening, note-taking, class discussions, practice tests and writing compositions.

These are examples of the exercises:

1. The students listened to a lecture, took notes and the class participated in a discussion of the lecture and important points to be included in the notes to develop skills in note-taking and listening.
2. The students read an assigned passage, picked out the main points and related it to the class to develop skills in text book reading.
3. Hints for taking essay and objective tests were given and practice tests covering the material were taken by students to develop test taking skills. Immediate feedback was given and test answers were discussed by the class.
4. Students were asked to write a paragraph describing a stressful situation and their method of coping with it to complement the text book material and to develop skills in writing.

The students were encouraged to participate actively in class. Class discussions were included in each class session. The instructors reinforced students through acceptance of his/her comments. Grades were based on a point system which encouraged students to earn extra points for certain developmental activities. These activities included conferences with instructors and advisors, use of a tutor, completing Vocational Interest Tests, use of the Career Information Center and attendance at Career programs. Tutors were available during the day in the Counseling Center for Math and English. Students were also encouraged to use the English and Math labs provided by these departments.

In an effort to determine the most effective method of developing high risk students, a study was conducted by the Counseling Center staff in the Fall Quarter 1975. One hundred and seven high risk students were randomly divided into 5 groups.

Group 1 was advised in the usual manner (English, Reading, Psychology required) with the exception of a required study lab for 1½ hours per week as a part of the Psychology course. Tutors were available during the Study Lab period to help in various courses.

Group 2 was advised in the usual manner with no lab requirements for the Psychology course.

Group 3 was advised in the usual manner but required a 12 hour intensive personal growth experience during the first 2 weeks of the quarter. The group experience consisted of two 3 hour sessions per week (Lab and class time).

Group 4 was advised in the usual manner but was not required to take the Psychology.

Group 5 received no advisement or counseling through the Counseling Center. These students were advised by other faculty members with no restrictions. Group 5 served as the control group.

A t-test was used to determine the difference between the grade point averages of the treatment groups and the control group. The table below shows the t-ratios.

| t-ratios for Control vs. Treatment Groups |                        |          |    |         |
|-------------------------------------------|------------------------|----------|----|---------|
| Group                                     | Treatment              | Mean QPA | df | t-ratio |
| 1                                         | Psyc Class & Study Lab | 2.35     | 42 | 3.54*   |
| 2                                         | Psyc Class Only        | 2.02     | 45 | 2.52**  |
| 3                                         | Psyc Class & Group Exp | 2.45     | 39 | 3.55*   |
| 4                                         | No Class-Advisement    | 1.94     | 39 | 1.41    |
| 5                                         | No Special Advisement  | 1.57     | -- | ----    |

\*p .01

\*\*p .05

The results of this study shows that students enrolled in the Psychology course received significantly higher grades than those who were not enrolled

in the class. This indicates that academic success of underdeveloped students increases as students participate in activities which lead to the development of personal, social and study skills. Those students participating in the Study Lab and intensive group experience received the highest grades. There was no significant difference between those students who were advised only and those who received no special advisement. There does seem to be some indication that the advisement was helpful but not significant. It may be noted that the course load for Regulated Admissions students is academically lighter and remedial in nature, therefore, it should not be compared to the grade point averages of the regular admission students.

A brief summary of 1975 Fall Regulated Admissions students is presented below.

|                                     |          |
|-------------------------------------|----------|
| Total enrolled                      | 107      |
| Number in Psychology classes        | 66       |
| Number eligible to return           | 63 (95%) |
| Received high distinction (GPA 3.4) | 2        |
| Received distinction (GPA 3.1)      | 6        |
| Number on Academic Probation        | 2        |
| Number on Academic Suspension       | 2        |
| Number dismissed                    | 1        |

83% returned for Winter Quarter

79.6% of the TTU Fall enrollees returned for Winter Quarter

64% completed 1 year of College work

43% returned for Fall Quarter 1976 (one year later)

Records from previous years showed that the retention of Regulated Admissions students tends to decrease each year. A greater number of students drop out during the first year. Data for the 1974 Fall Regulated Admissions enrollees showed 40% returning for the second year of College and 18% returning for the third year.

#### SUMMARY

A great many students had their first academic success experience in a long time in the Regulated Admissions program. Results of posttests of personality and study habits and attitude tests were disappointing when average group performance was reviewed. There was little change measured on the average, although sixty-nine percent of the students did show an increased score on the study habits measure.

Students evaluated their experiences in the program as quite positive. Most felt they should have studied more, and appeared more realistic in terms of their perceptions of their abilities. Perhaps most important is that they seemed to have more direction and a knowledge of what they must do to succeed.

The cost of the program was about \$6,000, with pro-rated instructional costs of \$4,500, advisement costs \$1,200, materials \$100, interest tests \$150 and career materials \$50. This brought the program cost per student to \$40.

In summary, the program:

1. was relatively inexpensive.
2. emphasized good academic advisement procedures.
3. placed requirements on students not used to achieving academically.
4. demonstrated good learning processes and techniques.
5. used positive reinforcement to encourage students to participate in class and in groups.
6. provided resources in the form of tutors.
7. provided much teacher-student contact.
8. enhanced cooperation with other students.
9. enhanced interpersonal relationships and communication.
10. provided a success experience for those who were ready.
11. provided more accurate perception of self in terms of abilities and goals.
12. taught students to use university resources (people and programs).
13. encouraged students to believe they had a responsibility in working toward their future.

The program did not:

1. provide extensive needed academic skill development in grammar, spelling, and basic mathematics.
2. provide services beyond one quarter unless assistance was sought by individual student.